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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/977,064 | 10/11/2001 | David J. O'Reilly | 5050-0031 | 1787 |

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EXAMINER

ZEMAN, MARY K

ART UNIT PAPER NUMBER

1631

DATE MAILED: 12/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|-------------------------------|---------------------------------|--|
| Office Action Summary | Application No. 09/977,064 | Applicant(s) O'REILLY ET AL. | |
| | Examiner Mary K Zeman | Art Unit 1631 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

Applicant's election of Group II, claims 7-9 and 12, with traverse is acknowledged. Upon review of Applicant's arguments, the pending claims, and the specification, the restriction requirement is WITHDRAWN and all claims will be examined herein.

Priority

Priority to a provisional application is acknowledged.

Information Disclosure Statement

The Information Disclosure Statement filed 4/15/02 has been entered and considered. An initialed copy of the PTO-1449 is enclosed.

Drawings

The drawings filed with the application are acceptable to the examiner.

Specification

Applicant is requested to update the status of any application serial numbers referenced in the specification as to their current status, either patented, or abandoned.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1-9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The rejected claims are drawn to methods for "facilitating exploration of... data" wherein the steps of the methods fail to provide a concrete tangible and useful result. The steps of the method merely provide data present in databases, and display related information, present in

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other databases. Neither the preamble of the claim nor the steps of the methods provide a result that is concrete, tangible and useful. The displayed data of the method must be further manipulated and worked upon by the user in ways not set forth in the claims. This indicates the methods and results (displayed data) are not statutory.

MPEP 2106: "For such subject matter to be statutory, the claimed process must be limited to a practical application of the abstract idea or mathematical algorithm in the technological arts. See *Alappat*, 33 F.3d at 1543, 31 USPQ2d at 1556-57 (quoting *Diamond v. Diehr*, 450 U.S. at 192, 209 USPQ at 10). See also *Alappat* 33 F.3d at 1569, 31 USPQ2d at 1578-79 (Newman, J., concurring) ("unpatentability of the principle does not defeat patentability of its practical applications") (citing *O'Reilly v. Morse*, 56 U.S. (15 How.) at 114-19). A claim is limited to a practical application when the method, as claimed, produces a concrete, tangible and useful result; i.e., the method recites a step or act of producing something that is concrete, tangible and useful. See *AT &T*, 172 F.3d at 1358, 50 USPQ2d at 1452. Likewise, a machine claim is statutory when the machine, as claimed, produces a concrete, tangible and useful result (as in *State Street*, 149 F.3d at 1373, 47 USPQ2d at 1601) and/or when a specific machine is being claimed (as in *Alappat*, 33 F.3d at 1544, 31 USPQ2d at 1557 (in banc))."

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Pati et al. US 2002/0032530 A1 having priority to 2/11/00).

Claims 1-9 are drawn to a method of facilitation exploration of data by providing a database which comprises gene expression profiles, drug signature profiles and correlation

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information between the gene expression profiles, the drugs, product information and other types of information. The methods require only *providing* the databases, and *displaying* a gene expression profile or drug signature profile, *displaying* correlation information, and *displaying* related product information. The information displayed can take a variety of forms, and can include hyperlinks for direct purchase of related products. Claims 10-12 are drawn to the systems which comprise the database, input means, selection means, correlation means product selection means, and display means.

Pati et al. (US 2002/0032530) disclose integrated genomics systems. Figure 1 is a block diagram of the integrated genomic system, which meets the limitations of rejected systems claims 10-12. It provides a database comprising information, input means, selection means, correlation means, display means. Means for purchasing products are also included. (see also paragraphs 0017-0030). The database can comprise information as to how gene expression is affected by treatment with a particular drug (gene expression signature), as well as information about that drug (drug signature) (see paragraph 0031, 0034). Then data is displayed that is relevant to the gene, expression profile, or high throughput screening. The displayed information is correlated to the originally displayed expression signature or drug signature (paragraphs 0036-0038). Related available product information is displayed, and can be directly purchased by the user through the use of a hyperlink. As such, this disclosure meets the limitations of the rejected claims.

Claims 1-3, 4-8, 10-12 are rejected under 35 U.S.C. 102(e) as being anticipated by Bassett Jr et al. (US 6,453,241 B1)

Bassett Jr et al. (US 6,453,241 B1) disclose systems and methods for exploring biological signal data. Figure 3 is a block diagram of system, which meets the limitations of rejected systems claims 10-12. It provides a database comprising biological response information, input means, selection means, correlation means, display means (see also columns 4-12). The database can comprise information as to how gene expression is affected by treatment with a particular drug (gene expression signature), as well as information about that drug (drug signature) (see columns 22-25 and column 42). The user selects a first set of data, such as a gene expression signature (column 12, line 45-). Then data is displayed that is relevant to the first set

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of data. The displayed information is correlated to the originally displayed expression signature or drug signature (column 2). Related available product information is displayed. As such, this disclosure meets the limitations of the rejected claims.

Conclusion

No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mary K Zeman whose telephone number is (703) 305-7133. In January, after the move to the new facilities, the phone number will be: (571) 272-0723.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Woodward, can be reached at (703) 308-4028. In January, after the move to the new facilities, the phone number will be: (571) 272-0722.

The Official fax number for this Art Unit is: (703) 872-9306

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC1600 Receptionist whose telephone number is (703) 308-0196.

mkz

12/5/03



MARY K. ZEMAN
PRIMARY EXAMINER

